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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,671	02/17/2006	Satoko Yamahira	Q93246	2722
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EXAMINER				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/568,671

**Applicant(s)**

YAMAHIRA ET AL.

**Examiner**

Irene Marx

**Art Unit**

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4, 6, 8, 10 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4, 6 and 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date 3/13/09
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

The amendment filed 3/13/09 is acknowledged. Claims 4, 6 and 16-18 are being considered on the merits.

Claims 8 and 10 are withdrawn from consideration as directed to a non-elected invention.

The rejection under 35 U.S.C 112, first paragraph regarding deposit is withdrawn in view of applicant's averments.

The rejection under 35 U.S.C § 112, second paragraph is withdrawn in view of applicant's definition of food or beverages forms in the specification at page 16:

"Other food forms of the composition of the invention include cell-containing microencapsulated forms, solid food forms (e.g., granules, powders (including freeze-dried powders of fermented milk, etc.), tablets, effervescent tablets, gums, goudi, and puddings), and milk products other than the above-mentioned fermented milk..."

The amendment filed 3/13/09 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

Amendments to the specification at page 3, line 3.

The basis for the amendment to *L. pentosus* is unclear from Bringel *et al.* (not "Bringal *et al.*") , as indicated in the amendment to the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

### Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:  
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 4, 6 and 16-18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

While the as-filed specification discloses the strains of interest as *L. plantarum*, applicant now amended the specification regarding strain *L. plantarum* FERM BP-10065 to be designated as *L. pentosus*, allegedly based on the Bringel *et al.* reference. Applicant has not indicated with specificity the basis for the reclassification of this strain or for the discrepancy between the specification and the claims as now amended.

No clear indication or mention in Bringel *et al.* is found regarding the specific strains encompassed by the invention as claimed.

Therefore, this material constitutes new matter and should be deleted.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4, 6 and 16-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ikenaga *et al.* or Perdigon *et al.* (J. Dairy Sci., 1999, 82:1108-1114) or Herias.

The claims are drawn to *Lactobacillus* compositions which are capable of stimulating mucosal immunity.

The cited references each discloses a *Lactobacillus plantarum* composition which appears to be identical to the presently claimed strain (see, e.g., Abstract; page 1109, col. 2, paragraph 2; page 284, paragraph 3), since the strain is similarly capable of stimulating mucosal immunity. The referenced composition appears to be identical to the presently claimed

strain and is considered to anticipate the claimed composition since the microorganism belongs to the same species *Lactobacillus plantarum* and has similar mucosal stimulating ability. Consequently, the claimed composition appears to be anticipated by the reference.

In the alternative, even if the claimed microorganism is not identical to the referenced microorganism with regard to some unidentified characteristics, the differences between that which is disclosed and that which is claimed are considered to be so slight that the referenced microorganism is likely to inherently possess the same characteristics of the claimed microorganism particularly in view of the similar characteristics which they have been shown to share. Thus the claimed composition would have been obvious to those skilled in the art within the meaning of USC 103.

Accordingly, the claimed invention as a whole was at least prima facie obvious, if not anticipated by the reference, especially in the absence of evidence to the contrary.

#### ***Response to Arguments***

Applicant's arguments and Yamahira Declaration have been fully considered but they are not deemed to be persuasive.

The claims are directed to a food or beverage composition or pharmaceutical compositions comprising a specific strain of *L. plantarum* "capable of stimulating mucosal immunity". However, there is no claim designated amount of the *L. plantarum* strain of interest in the compositions as claimed. The stimulation of mucosal immunity could be due to ingredients in the composition other than the recited strains.

It is emphasized that the claims are not directed to a biologically pure culture of a particular strain, but rather to ingestible compositions, such as various foods or beverages comprising undefined amounts of the cultures. The arguments are not directed to an ingestible composition comprising the strains with any specificity. There is nothing on the record to suggest that traces of dead cells of the strains of interest would have the touted properties. From the specification, it is apparent that  $2.0 \times 10^9$  cells/mL were used in the activity assays (Specification, page 39). This appears to be a threshold concentration of cells.

It is assumed that the Yamahira declaration is also directed to the use of  $2.0 \times 10^9$  cells/mL since the same protocol was used. If it is, the declaration and claims should reflect this concentration to provide for a nexus between the claimed invention and the results touted.

There is no clear correlation between the material having the touted unexpected properties and the claimed invention wherein the concentration of the strains of interest is not recited in the claimed composition. In addition, it should be noted the declaration does not constitute a side-by-side comparison with the strains of the references cited, with the exception of strain 299v of Herias. Applicant asserts that the declaration provides a comparison vis-a-vis *Lactobacillus plantarum* ONC141 of Ikenaga *et al.* (Response, page 11, paragraph 2) However, this comparison could not be located and is queried. Also, the process used for the selection of the strains to be included in the declaration for comparison purposes is not set forth with any particularity.

At the concentration of  $2.0 \times 10^9$  cells/mL it is apparent from the data presented that the strains of interest shown unexpected results over the strain 299v of Herias. However, the rejection is maintained on this reference, because there is no clear correlation between the results shown testing a specific concentration of live cells and a food or beverage composition or a pharmaceutical composition containing an undisclosed number of cells, including traces, as claimed.

The claimed ingestible composition does not provide a patentable distinction over the cited art directed to ingestible compositions comprising strains of the same species *L. plantarum*. In addition, it is unclear that the touted benefits of human mucosal immunostimulation are effective in the absence of a threshold population of bacteria in the composition, such as  $2.0 \times 10^9$  cells/mL, and applicant has not shown otherwise.

The scope of the showing must be commensurate with the scope of claims to consider evidence probative of unexpected results, for example. In re Dill, 202 USPQ 805 (CCPA, 1979), In re Lindner 173 USPQ 356 (CCPA 1972), In re Hyson, 172 USPQ 399 (CCPA 1972), In re Boesch, 205 USPQ 215, (CCPA 1980), In re Grasselli, 218 USPQ 769 (Fed. Cir. 1983), In re Clemens, 206 USPQ 289 (CCPA 1980). It should be clear that the probative value of the data is not commensurate in scope with the degree of protection sought by the claim.

Therefore the rejection is deemed proper and it is adhered to.

No claim is allowed.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irene Marx whose telephone number is (571) 272-0919. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300 .

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Irene Marx/  
Primary Examiner  
Art Unit 1651